What is Claimed is:

1. A pipes or liner suitable for use in transporting substances in oil and gas applications, comprising a melt-mixed blend of:
   (a) at least one polyamide and;
   (b) at least one grafted fluoropolymer having polar functionality, wherein said fluoropolymer is incompatible with said at least one polyamide (a);
   wherein said polyamides (a) are in a continuous matrix phase and said fluoropolymers (b) are present in a discontinuous distributed phase in the form of a multitude of thin, substantially parallel, and overlapping layers of material embedded in the continuous phase.

2. The pipe or liner of claim 1 wherein the at least one grafted fluoropolymer having polar functionality is present in layers of material more than about 0.5 micrometers and less than about 50 micrometers thick.

3. The pipe or liner of claim 1 wherein the at least one polyamide is selected from the group consisting of polycaproamide, poly(11-aminoundecanoamide), polydodecanoamide, poly(hexamethylene sebacamide), poly(hexamethylene dodecanoamide), and copolymers of poly(hexamethylene adipamide) with polycaproamide.

4. The pipe or liner of claim 1 wherein the at least one polyamide includes amorphous polyamide copolymers derived in part from aromatic monomers.

5. The pipe or liner of claim 1 wherein the melt-mixed blend further comprises at least one plasticizer.

6. The pipe or liner of claim 1 wherein the melt-mixed blend further comprises at least one lubricating agent.

7. The pipe or liner of claim 1 wherein the melt-mixed blend further comprises at least one stabilizer.

8. The pipe or liner of claim 1 wherein the at least one polyamide each has a melting point in the range of about 170 °C to 270 °C.

9. The pipe or liner of claim 1 wherein the at least one polyamide each has a melting point in the range of about 180 °C to 240 °C.

10. The pipe or liner of claim 1 wherein the at least one polyamide is present in about 70 to 95 weight percent, and the at least one grafted fluoropolymer having polar functionality is present in about 5 to 30 weight percent, where all weight percents are based on the total amount of polyamide and grafted fluoropolymer having polar functionality.

11. The pipe or liner of claim 1 wherein the at least one grafted fluoropolymer having polar functionality is selected from the group consisting of fluoropolymers that have carboxylic moieties grafted thereto, either on the fluoropolymer backbone itself or on side chains.

12. The pipe or liner of claim 1 wherein the at least one grafted fluoropolymer having polar functionality is selected from the group consisting of fluoropolymers that have epoxides grafted thereto, either on the fluoropolymer backbone itself or on side chains.

13. The pipe or liner of claim 1 in the form of a flexible pipe.

14. The pipe or liner of claim 1 in the form of a line pipe.

15. The liner of claim 1 in the form of a downhole casing liner.

16. The pipe or liner of claim 1 further comprising at least one additional coextruded layer comprising polyamide and/or fluoropolymer.

17. A fuel line, comprising a melt-mixed blend of:
    (a) at least one polyamide and;
    (b) at least one grafted fluoropolymer having polar functionality, wherein said fluoropolymer is incompatible with said at least one polyamide (a);
wherein said polyamides (a) are in a continuous matrix phase and said fluoropolymers (b) are present in a discontinuous distributed phase in the form of a multitude of thin, substantially parallel, and overlapping layers of material embedded in the continuous phase.

18. The fuel line of claim 17 further comprising at least one additional coextruded layer comprising polyamide and/or fluoropolymer.